

Abstract

5 **Chromium(VI)-Free Conversion Layer and Method for Producing It**

10 A chromium(VI)-free, chromium(III)-containing and substantially
coherent conversion layer on zinc or zinc alloys presenting, even in the
absence of further components such as silicate, cerium, aluminum and
borate, a corrosion protection of approx. 100 to 1000 h in the salt spray
test according to DIN 50021 SS or ASTM B 117-73 until first attack
according to DIN 50961 Chapter 10; being clear, transparent and
substantially colorless and presenting multi-colored iridescence; having a
15 layer thickness of approx. 100 nm to 1000 nm; and being hard,
adhering well and being resistant to wiping.

20 (Fig. 2)